

Remarks

Applicant respectfully requests reconsideration of the application.

The Examiner indicated that the Declaration does not contain the title nor identify the residence or postal address of each inventor. However, the title appears in the Declaration in the paragraph starting, "I believe I am...." The address of each inventor is provided on the application data sheet filed with the application.

The Examiner noted that an IDS has been recorded but is not currently included with the file. Applicant requests the Examiner to consider the IDS or allow it to be re-filed without the payment of a fee because the IDS, 1449 form and references were previously recorded by the USPTO.

The Examiner objected to the drawings because object 110 has not been addressed in the specification. The above amendment to the specification adds a reference to block 110. No new matter has been added to the specification.

The Examiner objected to claims 7-9 and 17 claims as being of improper dependent form. Applicant disagrees, but the issue is moot because the claims have been re-written in independent form.

The Examiner has rejected claims 1-9 under 35 U.S.C. Section 101 on the basis that claim 1 provides "authenticating a media signal" without any steps in the method/process. Applicant has amended the preamble of claim 1 to re-direct the claimed subject matter to an alternative method, namely a method of "modifying a media signal so that the media signal can be authenticated." Similar changes are incorporated in claims 7-8.

Claim 9 is rejected as being indefinite and as lacking antecedent basis. Claim 9 now depends from claim 8, and, as written, is definite and provides antecedent basis for "the detector."

Claims 1-2, 4 and 7-8

Claims 1-2, 4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Katzenbeisser et al. ("Katzenbeisser"). The Office has given the application an effective filing date of September 11, 2000. Katzenbeisser, at least on its face, has a date of 2000. Therefore, it is not prior art under 35 U.S.C. 102(b) or 103(a), and all rejections based on it are invalid.

Regarding claim 1, Katzenbeisser does not teach "adjusting a relationship" such that the alteration to the media signal to be detected alters the relationship as claimed. Katzenbeisser is silent as to adjusting a relationship between coefficients to enable authentication as claimed.

Claims 2, 4 and 7-8 are patentable for the same reasons as claim 1.

Claims 10, 14 and 17

Claims 10, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,757,407 to Bruckstein et al. ("Bruckstein").

The elements of claim 10 are not inherent in Bruckstein. Bruckstein's method does not necessarily involve evaluation of signal peaks as claimed. Moreover, Bruckstein does not teach "determining based on degradation of the signal peaks whether the media signal has been altered."

Claims 14 and 17 are patentable over Bruckstein for the same reasons as claim 10.

Claims 18-20

Claims 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,859,920 by Daly et al. ("Daly")

In contrast to the contention in the Action, Daly does not teach a calibration signal including a set of peaks at selected frequency coefficients. The Examiner has made a number of general citations, none of which show this particular type of calibration signal as claimed. Moreover, Daly does not correlate a calibration signal including a set of peaks at selected frequency coefficients with the media signal as claimed.

Further, as noted in the Action, Daly does not explicitly teach "evaluating whether the media signal has been altered..." as claimed. The Office's argument that this element is inherent in Daly's teachings is flawed. The cited passage at col. 9, lines 40-50 refers to Daly's approach of finding an array of pixels where performance of the decoder will be optimized. This process has nothing to do with "evaluating whether the media signal has been altered" as claimed.

Claims 19-20 are patentable for the same reasons as claim 18.

Claim 3

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katzenbeisser in view of U.S. Patent No. 6,625,295 by Wolfgang et al. ("Wolfgang").

Katzenbeisser has not been established as prior art and does not teach the elements of claim 1 as previously noted. Moreover, Wolfgang's mere reference to scanning information with a scanner provides no teaching that Wolfgang's method or Katzenbeisser's method can be used to detect alteration, namely, image alteration due to scanning, printing or photocopying as claimed. Therefore, the combination of these references does not render claim 3 obvious.

Claim 5

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katzenbeisser in view of U.S. Patent No. 6,535,251 by Ribas-Corbera ("Ribas-Corbera").

Katzenbeisser has not been established as prior art and does not teach the elements of claim 1 as previously noted. Ribas-Corbera relates to video compression and provides no teaching regarding modifying a media signal so that it can be authenticated as claimed. The combined teachings of these references fail to teach all of the elements of claim 5, and there is no motivation to combine video compression teachings used to improve video quality in Ribas-Corbera with the teachings in Katzenbeisser. These techniques designed to improve video quality are not used for any type of authentication, and there is no reason to combine them with Katzenbeisser to make elements of the invention as claimed.

Claim 6

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katzenbeisser in view of U.S. Patent No. 5,832,119 to Rhoads ("Rhoads").

Katzenbeisser has not been established as prior art and does not teach the elements of claim 1 as previously noted. Moreover, the combined teachings of Katzenbeisser and Rhoads do not provide all of the elements of claim 6. Therefore, the combination does not render claim 6 obvious.

Claim 9

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katzenbeisser in view of U.S. Patent No. 6,563,935 to Echizen et al. ("Echizen").

Katzenbeisser has not been established as prior art and does not teach the elements of claim 1 as previously noted. Moreover, the combined teachings of Katzenbeisser and Echizen do not provide all of the elements of claim 9. Therefore, the combination does not render claim 9 obvious. Neither Katzenbeisser nor Echizen teach, "comparing the relationship with a threshold to detect alteration of the potentially corrupted media signal" as claimed. Echizen provides no suggestion that his method of comparing differences in brightness values with threshold values can be used to detect alteration as claimed. Moreover, Echizen fails to suggest that this technique could apply to frequency coefficients.

#### Claim 11

Claim 11 is rejected under 35 U.S.C. 103(a) as being anticipated by Bruckstein in view of Rhoads. The Action incorrectly states "anticipated" in this rejection of claim 11. Applicant assumes that the Examiner intended to apply an obviousness rejection.

Bruckstein and Rhoads, even when combined, do not teach all of the elements of claim 10. For example, the combined teachings do not disclose or teach "determining based on degradation of the signal peaks whether the media signal has been altered". Therefore, the combined teachings do not render claim 10 or 11 (which is based on 10) obvious.

#### Claim 12

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckstein in view of Echizen.

Bruckstein and Echizen, even when combined, do not teach all of the elements of claim 10. For example, the combined teachings do not disclose or teach "determining based on degradation of the signal peaks whether the media signal has been altered". Therefore, the combined teachings do not render claim 10 or 12 (which is based on 10) obvious.

#### Claim 13

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckstein in view of Echizen and further in view of Rhoads.

Bruckstein, Echizen and Rhoads, even when combined, do not teach all of the elements of claim 10. For example, the combined teachings do not disclose or teach "determining based on degradation of the signal peaks whether the media signal has been altered". Therefore, the combined teachings do not render claim 10 or 13 (which is based on 10) obvious.

Claims 15-16

Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckstein in view of Katzenbeisser.

Katzenbeisser has not been established as prior art.

Bruckstein and Katzenbeisser, even when combined, do not teach all of the elements of claim 10. For example, the combined teachings do not disclose or teach "determining based on degradation of the signal peaks whether the media signal has been altered". Therefore, the combined teachings do not render claim 10 or 15-16 (which are based on 10) obvious.

In view of the above, the claims are patentable over the cited art.

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Respectfully submitted,

DIGIMARC CORPORATION

CUSTOMER NUMBER 23735

Phone: 503-885-9699  
FAX 503-885-9880

By



Joel R. Meyer  
Registration No. 37,677